UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,590	02/15/2001	Rabindranath Dutta	AUS920010034US1	5654

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EXAMINER
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ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/784,590	DUTTA ET AL.
	Examiner	**Art Unit**	
	James H Blackwell	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Amendment received 07/06/2004.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Independent claims 1, and 7 are directed to non-statutory subject matter. The claims are non-machine implemented methods requiring only manual or mental, human "parsing" of a document to identify one of, for example, two "tags" in the document and subsequent audible presentation of, e.g., "speaking" text at a level, e.g., whisper or loud based on the tag identified. The language of neither of these claims requires a transformation of physical subject matter into a different state or thing nor a practical application of an abstract ides that provides a useful, concrete, and tangible result.

Independent claims 39, and 40 of the claimed invention are directed to non-statutory subject matter because they are not limited to tangible embodiments. In view of the Applicant's disclosure, specification page 18, lines 18-31; page 19, lines 1-5, the claimed "computer readable media" is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMS, DVD-ROMS) and intangible embodiments (e.g., transmission-type media, such as digital and analog communications links, wired or wireless communications). As such, the claims are not limited to statutory subject matter and are therefore non-statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-33, and 38-41 are rejected under 35 U.S.C. 103(a) as being

unpatentable over MacKenty et al. (hereinafter MacKenty, U.S. Patent No. 6,085,161).

In regard to independent Claim 1 (and similarly independent Claims 7, 17, 23, 33,

and 38-40), MacKenty teaches *receiving the document* in that the HTML document

received from the browser utility, or some other utility program capable of providing

HTML documents (Col. 4, lines 32-34; Fig. 1). MacKenty also teaches *parsing the*

document to identify a presence of a selected tag indicating an emphasis level, wherein

text is associated with the selected tag in that the received HTML documents are

parsed into a tree data structure by the parser (12). MacKenty further teaches that in

one embodiment, the parser (12) produces a tree data structure in which each node of

the tree represents an HTML tag whose descendants constitute the portion of the

document contained within that tag. In this embodiment, the attributes and values of

each tag are attached to the node representing that tag. The parent node of each node

represents the HTML tag that encloses the tag represented by that node. The child

nodes of each node represent the HTML tags that are enclosed by the tag represented

by that node. Character data, which is the textual part of the document between the

HTML tags, are represented as leaf nodes of the tree. Character data can be split into

multiple nodes of the tree at sentence boundaries, and very long sentences may be

further divided into multiple nodes to avoid having any single node containing a large

amount of text. The parser (12) may store the tree data structure that it generates in a

convenient memory element that is accessible by both the parser (12) and the reader

(14). Alternatively, the parser (12) may communicate the tree data structure directly to

the reader (14) (Col. 4, lines 33-57). MacKenty also teaches that *responsive to an*

identification of the presence of the selected tag, audibly presenting the text using the

emphasis level prior to presenting other text within the document in that when the

reader (14) begins interpreting the tree structure representing the example HTML

document, it instructs the sonification engine to produce a non-speech sound that

represents the beginning of the body of the document, as marked by the body <BODY>

tag. As the sound is played (or after it ends if the user prefers), the reader enqueues the

text at the beginning of the document ("The Hypertext Markup Language ...") with the

speech synthesis module. As soon as the word "Hypertext" is begun, the reader (14)

enqueues the encountered hotlink tag with the sonification engine, causing the

sonification engine to produce a sound indicating that the text currently being read aloud

is a hotlink to another document, as marked by the <A> tag. In one embodiment, this

sound continues to be heard until the end of the hotlink, as marked by the </A> tag, is

read. Thus, the user will hear the sound representing the "hotlink" concept while the text

of that hotlink is being read. The next phrase ("is a standard...") is read without any non-

speech sound, as there is no markup assigning any special meaning to that text. The

next phrase ("World Wide Web...") is read while the hotlink sound is again played,

because it is marked up as a hotlink. Similarly, the next sentence is read with the hotlink

sound being produced whenever the text being read is within the <A> and </A> tags

(Col. 7, lines 66-67; example HTML file; Col. 7, lines 43-56; Col. 8, lines 1-25). To

summarize, MacKenty teaches that the reader begins interpreting the document once

an HTML document has been obtained and parsed by the parser (Col. 4, lines 59-62). It

then processes the document. When it encounters a tag, such as an indication of a

hyperlink, it can present a non-speech sound, then the text contained within the

hyperlink (e.g., <A href="">THIS TEXT</A> with speech synthesis, then another non-

speech sound when it encounters the close hyperlink tag (</A>). Thus, *a tag is read*

prior to presenting other text within the document. MacKenty does not explicitly teach *a*

bus system; a communications unit connected to the bus system; a memory connected

to the bus system, wherein the memory includes a set of instructions; and a processing

unit connected to the bus system. However, MacKenty does teach that for embodiments

in which the sonification engine is provided as a software module, the software module

should be invoked using whatever means is provided by the operating system to do so

(implies a computer or computer-like device to execute the software; the computer

containing one or more of the claimed components). Alternatively, if the sonification

engine is provided as firmware or hardware, then the engine can be activated using

conventional techniques for communicating with hardware or firmware (communications

unit), such as applying an electrical voltage to a signal line to indicate the existence of

an interrupt request for service or by writing a predetermined data value to a register

(memory). It would have been obvious to one of ordinary skill in the art at the time of

invention that MacKenty does provide descriptions and components that when

combined in various ways would constitute a device for executing the method as

claimed.

In regard to dependent Claims 2-4 (and similarly dependent Claims 14-16, 18-20,

and 30-32), MacKenty teaches that *the document is a markup language document* and

that *the markup language is one of a hypertext markup language document and a*

extensible markup language document in that the present invention presents HTML

documents to the user as a linear stream of audio information (Col. 1, lines 44-45; Fig.

1).

In regard to dependent Claim 5 (and similarly dependent Claim 21), MacKenty

teaches that *the selected level of emphasis is selected based on a type for the selected*

tag in that how the device (10) sonifies the HTML document depends on its

configuration. In one embodiment, the configuration would represent most of the HTML

markup using non-speech sounds, and the text using synthesized speech. More

specifically, MacKenty implies that different sounds can be played when encountering

different markup (e.g., a <BODY> tag could be represented with a low-frequency beep,

while a hyperlink tag could be represented by a higher-frequency beep) (Col. 8, lines 1-

25). Thus, based on how the user configures the system, different tag types can be

represented with different sounds (levels of emphasis).

In regard to dependent Claim 6 (and similarly dependent Claim 13), MacKenty

teaches that the *method is located in a web browser* in that the present invention works

with a browser utility, that is, an application for visually displaying HTML documents, to

present HTML documents to computer users auditorially, instead of visually. It parses

HTML documents, associates the markup and content with various elements of an

auditory display, and uses a combination of machine-generated speech and non-

speech sounds to represent the documents auditorially to a user (Col. 1, lines 60-67).

In regard to dependent Claim 8 (and similarly dependent Claim 24), MacKenty

teaches that *the data structure is one of a list, a linked list, and a database* in that the

parser produces a tree data structure in which each node of the tree represents and

HTML tag (Col. 4, lines 38-41). The reader then accesses the tree data structure in

order to sonify the page of HTML data that the tree data represents (Col. 4, lines 59-62).

In regard to dependent Claim 9 (and similarly dependent Claim 25), MacKenty

teaches that *the set of text is at least one word* by way of example (see text between <A

HREF></A> tags; Col. 7, lines 44-46).

In regard to dependent Claim 10 (and similarly dependent Claim 26), MacKenty

teaches that *the emphasis level is at least one of a volume level and a type of*

intonation. MacKenty implies that different sounds can be played when encountering

different markup (e.g., a <BODY> tag could be represented with a low-frequency beep,

while a hyperlink tag could be represented by a higher-frequency beep) (Col. 8, lines 1-

25). Thus, based on how the user configures the system, different tag types can be

represented with different sounds (types of intonations).

In regard to dependent Claim 11 (and similarly dependent Claim 27), MacKenty

teaches, by way of example, that when the reader (14) begins interpreting the tree

structure (*a data structure*) representing the example HTML document, it instructs the

sonification engine to produce a non-speech sound that represents the beginning of the

body of the document, as marked by the body <BODY> tag. As the sound is played (or

after it ends if the user prefers), the reader enqueues the text at the beginning of the

document ("The Hypertext Markup Language ...") with the speech synthesis module. As

soon as the word "Hypertext" is begun, the reader (14) enqueues the encountered

hotlink tag with the sonification engine, causing the sonification engine to produce a

sound indicating that the text currently being read aloud is a hotlink to another

document, as marked by the <A> tag. In one embodiment, this sound continues to be

heard until the end of the hotlink, as marked by the </A> tag, is read. Thus, the user will

hear the sound representing the "hotlink" concept while the text of that hotlink is being

read. The next phrase ("is a standard...") is read without any non-speech sound, as

there is no markup assigning any special meaning to that text. The next phrase ("World

Wide Web...") is read while the hotlink sound is again played, because it is marked up

as a hotlink. Similarly, the next sentence is read with the hotlink sound being produced

whenever the text being read is within the <A> and </A> tags (Col. 7, lines 66-67;

example HTML file; Col. 7, lines 43-56; Col. 8, lines 1-25). To summarize, MacKenty

teaches that the reader begins interpreting the document once an HTML document has

been obtained and parsed by the parser (Col. 4, lines 59-62). It then processes the

document. When it encounters a tag, such as an indication of a hyperlink, it can present

a non-speech sound, then the text contained within the hyperlink (e.g., <A href="">THIS

TEXT</A> with speech synthesis, then another non-speech sound when it encounters

the close hyperlink tag (</A>). Thus, *a tag is read prior to presenting other text within the document.*

In regard to dependent Claim 12 (and similarly dependent Claim 28), <u>MacKenty</u> teaches that *the text is presented audibly* in that synthetic speech is used to read the text content aloud, and non-speech sounds to represent features of the document indicated by the markup. For example, headings, lists, and hypertext links can each be represented by distinct non-speech sounds that inform the user that the speech they are hearing is part of a header, list or hypertext link, respectively (Col. 2, lines 1-7).

In regard to dependent Claim 41, <u>MacKenty</u> teaches that *said method identifies the presence of a plurality of tags having respective associated text and said respective associated text of all of said plurality of tags is presented prior to presenting other text within the document* in that in the processing of lines containing <HTML><BODY>The <A HREF=http://www.w3c.org/MarkUp/>Hypertext markup Language (HTML)</A> where the <BODY> tag has associated text "The" and the <A HREF> tag has associated with it the text "Hypertext markup Language (HTML)", which are presented in audible form before the remainder of the exemplary web page (Col. 7, lines 43-67; Col. 8, lines 1-16).

Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over

MacKenty in view of Noguchi (U.S. Patent No. 5,983,184).

In regard to dependent Claim 34, MacKenty fails to explicitly teach that *the bus*

system is a single bus. However, Noguchi teaches in Fig. 1 a single bus (2). It would

have been obvious to one of ordinary skill in the art at the time of invention to combine

the teachings of MacKenty and Noguchi as both relate to audibly presenting data.

Adding the teaching of Noguchi provides the benefit of more explicitly describing the

system associated with MacKenty's invention.

In regard to dependent Claim 35, MacKenty fails to explicitly teach that *the bus*

system includes a primary bus and a secondary bus. However, Noguchi teaches that

the present invention can be implemented by a normal personal computer (PC), a

workstation, or a combination of them (hence more than one bus) (Col. 8, lines 53-55).

It would have been obvious to one of ordinary skill in the art at the time of invention to

combine the teachings of MacKenty and Noguchi as both relate to audibly presenting

data. Adding the teaching of Noguchi provides the benefit of more explicitly describing

the system associated with MacKenty's invention.

In regard to dependent Claim 36, MacKenty fails to explicitly teach that *the*

processing unit includes a plurality of processors. However, Noguchi teaches that the

present invention can be implemented by a normal personal computer (PC), a

workstation, or a combination of them (hence more than one processor) (Col. 8, lines

53-55). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of MacKenty and Noguchi as both relate to audibly presenting data. Adding the teaching of Noguchi provides the benefit of more explicitly describing the system associated with MacKenty's invention.

In regard to dependent Claim 37, MacKenty fails to explicitly teach that *the communications unit is one of a modem and Ethernet adapter*. However, Noguchi teaches that the present invention may be implemented as a client/server system wherein a client machine is connected by a LAN to a server machine via Ethernet or a token ring (Col. 9, lines 9-12). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of MacKenty and Noguchi as both relate to audibly presenting data. Adding the teaching of Noguchi provides the benefit of more explicitly describing the system associated with MacKenty's invention.

Response to Arguments

Applicant's arguments with respect to claims 1 and 7 have been considered but

are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James H Blackwell whose telephone number is 571-

272-4089. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph H Feild can be reached on 571-272-4090. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

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more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER

James H. Blackwell
03/29/05